APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,039	01/12/2001	Joseph Rinchiuso	CE08395R	1866

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EXAMINER
HAILE, FEBEN

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
06/16/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 February 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14</u> is/are pending in the application.

    4a) Of the above claim(s) <u>10-12</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-9 and 13-14</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In view of amendment filed February 27, 2007, the status of the application is still

pending with respect to claims 1-14, with claims 10-12 being withdrawn from

consideration due to restrictive non-election.

2.   The amendment filed is insufficient to overcome the rejection of claims based

upon Koo et al. (US 6,804,219), Hjelm et al. (US 6,529,497), and Lohtia et al. (US

2002/0082033) as set forth in the last Office action because: the Applicants claimed

invention fails to clarify a distinction over the cited references, thus the subject matter is

not patentable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Koo et

al. (US 6,804,219), hereinafter referred to as Koo, in view of Hjelm et al. (US

6,529,497), hereinafter referred to as Hjelm.

Regarding claims 1 and 7, Koo discloses transmitting data over a wireless data

channel at a data rate **(figure 2 unit 200; column 2 line 38; in an active state, data is**

transmitted on a dedicated traffic channel at a rate); determining that no more data needs to be transmitted **(column 2 lines 43-46; data transmission is discontinued)**.

Koo fails to explicitly suggest delaying dropping the data channel for a time period based on the data rate, wherein the time period is based on the data rate.

Hjelm teaches delaying dropping the data channel for a time period based on the data rate **(column 9 lines 53-67; a method for addressing a capacity problem by providing timers for channels comprising; starting a timer when there is no more traffic ongoing on a channel, i.e. data rate=0, and then releasing that channel when the timer expires)**, wherein the time period is based on the data rate **(column 10 lines 6; the timer values can be set dynamically either per packet control unit or per cell)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method for releasing a channel taught by Hjelm into the state transition method disclosed by Koo. The motivation for such a modification is to efficiently utilize the idle capacity for data transmission even if the capacity allocated for data service is not being used when the amount of data is not known before the point of transmission.

Regarding claim 2, Koo discloses the step of transmitting data over the wireless data channel comprises the step of transmitting data over a Code Division Multiple Access (CDMA) Supplemental Channel **(column 1 lines 49-54; communication between a base station and mobile station use dedicated channels such as a supplemental channel)**.

 Regarding claim 3, Koo discloses if data transmission is discontinued for a predetermined time in the active state, the dedicated traffic channel is released and a control hold state is entered **(column 2 lines 43-46)**.

 Koo fails to explicitly suggest wherein the step of delaying dropping the data channel for a time period based on the data rate comprises the step of delaying dropping the data channel for a time period, wherein the time period is proportional to the data rate.

 Hjelm teaches delaying dropping the data channel for a time period based on the data rate comprises the step of delaying dropping the data channel for a time period **(column 9 lines 53-67; a method for addressing a capacity problem by providing timers for channels comprising; starting a timer when there is no more traffic ongoing on a channel, i.e. data rate=0, and then releasing that channel when the timer expires)**, wherein the time period is proportional to the data rate **(column 10 lines 6; the timer values can be set dynamically either per packet control unit or per cell)**.

 It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method for releasing a channel taught by Hjelm into the state transition method disclosed by Koo. The motivation for such a modification is to efficiently utilize the idle capacity for data transmission even if the capacity allocated for data service is not being used when the amount of data is not known before the point of transmission.

Regarding claim 4, Koo discloses operating a data transmitter in a CDMA Active state **(figure 2 unit 200; column 2 line 38; in an active state, data is transmitted on a dedicated traffic channel at a rate)**; determining that no more data needs to be transmitted over a CDMA supplemental channel **(column 2 lines 43-46; data transmission is discontinued)**; and operating the data transmitter in a Control Hold state **(column 2 lines 43-46; the dedicated traffic channel is released and a control hold state is entered)**.

Koo fails to explicitly suggest prior to delaying transition to the Control Hold state for a period of time, wherein the period of time is based on a data rate.

Hjelm teaches prior to delaying transition to the Control Hold state for a period of time **(column 9 lines 53-67; a method for addressing a capacity problem by providing timers for channels comprising; starting a timer when there is no more traffic ongoing on a channel, i.e. data rate=0, and then releasing that channel when the timer expires)**, wherein the period of time is based on a data rate **(column 10 lines 6; the timer values can be set dynamically either per packet control unit or per cell)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method for releasing a channel taught by Hjelm into the state transition method disclosed by Koo. The motivation for such a modification is to efficiently utilize the idle capacity for data transmission even if the capacity allocated for data service is not being used when the amount of data is not known before the point of transmission.

Regarding claim 5, Koo discloses wherein the step of operating the data transmitter in the CDMA Active state comprises the step of transmitting via a dedicated control channel and a CDMA supplemental channel **(column 1 lines 49-54; communication between a base station and mobile station use dedicated channels such as a dedicated control channel or a supplemental channel)**.

Regarding claim 6, Koo discloses wherein the step of operating the data transmitter in the CDMA Control Hold state comprises the step of transmitting via a dedicated control channel only **(column 1 lines 49-54; communication between a base station and mobile station use dedicated channels such as a dedicated control channel)**.

Regarding claim 7, Koo discloses channel circuitry for transmitting data **(figure 2 unit 200; column 2 line 38; in an active state, data is transmitted on a dedicated traffic channel at a rate)**.

Koo fails to explicitly suggest a timer coupled to the channel circuitry, wherein the timer delays deactivation of the channel circuitry after data transmission for a period of time, wherein the period of time is based on a data rate.

Hjelm teaches a timer coupled to the channel circuitry **(column 9 lines 53-57; a method for addressing a capacity problem by providing timers for channels comprising)** wherein the timer delays deactivation of the channel circuitry after data transmission for a period of time **(column 9 lines 57-67; starting a timer when there is no more traffic ongoing on a channel, i.e. data rate=0, and then releasing that channel when the timer expires)**, wherein the period of time is based on a data rate

(column 10 lines 6; the timer values can be set dynamically either per packet control unit or per cell).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method for releasing a channel taught by Hjelm into the state transition method disclosed by Koo. The motivation for such a modification is to efficiently utilize the idle capacity for data transmission even if the capacity allocated for data service is not being used when the amount of data is not known before the point of transmission.

Regarding claim 8, Koo discloses if data transmission is discontinued for a predetermined time in the active state, the dedicated traffic channel is released and a control hold state is entered **(column 2 lines 43-46)**.

Koo fails to explicitly suggest wherein the period of time is proportional to the data rate.

Hjelm teaches wherein the period of time is proportional to the data rate **(column 10 lines 6; the timer values can be set dynamically either per packet control unit or per cell)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method for releasing a channel taught by Hjelm into the state transition method disclosed by Koo. The motivation for such a modification is to efficiently utilize the idle capacity for data transmission even if the capacity allocated for data service is not being used when the amount of data is not known before the point of transmission.

Regarding claim 9, Koo discloses wherein the channel circuitry comprises CDMA fundamental channel circuitry **(column 1 lines 49-54; communication between a base station and mobile station use dedicated channels such as a fundamental channel)**.

4.   Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koo et al. (US 6,804,219), hereinafter referred to as Koo Hjelm et al. (US 6,529,497), hereinafter referred to as Hjelm, in view of Lohtia et al. (US 2002/0082033), hereinafter referred to as Lohtia.

Regarding claims 13-14, Koo as modified by Hjelm discloses the limitations of base claim 1.

Koo, Hjelm and/or their combination fail to suggest establishing a temporary block flow (TBF) between a transmitting device and a receiving device to transmit data over the wireless data channel; and delaying termination of the TBF by transmitting dummy data over the wireless data channel.

Lohtia discloses establishing a temporary block flow (TBF) between a transmitting device and a receiving device to transmit data over the wireless data channel **(page 2 paragraph 0024; a method for establishing a temporary block flow (TBF) between a mobile station and base station for signaling purposes)**. and delaying termination of the TBF by transmitting dummy data over the wireless data channel **(page 3 paragraph 0028-0029; the base station and mobile station send messages to each other when the end of a TBF is detected before releasing the TBF)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of Lohtia into the state transition method disclosed by Koo as modified by the method for releasing a channel taught by Hjelm. The motivation being to enhance the performance of bursty packet based communications over a wireless network.

Regarding claim 14, Koo as modified by Hjelm discloses the limitations of base claim 7.

Koo, Hjelm and/or their combination fail to suggest establishing a temporary block flow (TBF) between a transmitting device and a receiving device to transmit data over the wireless data channel; and delaying termination of the TBF by transmitting dummy data over the wireless data channel.

Lohtia discloses establishing a temporary block flow (TBF) between a transmitting device and a receiving device to transmit data over the wireless data channel **(page 2 paragraph 0024; a method for establishing a temporary block flow (TBF) between a mobile station and base station for signaling purposes)**. and delaying termination of the TBF by transmitting dummy data over the wireless data channel **(page 3 paragraph 0028-0029; the base station and mobile station send messages to each other when the end of a TBF is detected before releasing the TBF)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of Lohtia into the state transition method disclosed by Koo as modified by the method for releasing a channel taught by Hjelm.

The motivation being to enhance the performance of bursty packet based communications over a wireless network.

Response to Arguments

5.   Applicant's arguments filed February 27, 2007, with respect to the rejection of claim(s) 1-9 and 13-14 have been fully considered but they are not persuasive.

The Applicant respectfully traverses that Koo nor Hjelm teach that a delay period should be based on a data rate or proportional to a data rate. The Examiner respectfully disagrees with the Applicant. Koo teaches the transition between an active state and control hold state using a supplemental channel with variable transmission rates ranging from 93.6 Kbps to 153.6 Kbps or 14.4 Kbps to 115.2 Kbps. Hjelm suggests delaying the transition of an active channel to an idle channel according to a timer, such that timer values can be set **dynamically** either per packet control unit or per cell. Therefore as the claims are interpreted in their broadest sense, the Examiner believes that the combination of Koo and Hjelm indeed does render the Applicant's invention obvious.

The Applicant respectfully traverses that Lohtia does not suggest delaying TBF termination by transmitting dummy data. The Examiner respectfully disagrees with the Applicant. Lohtia teaches the exchange of a control message including a parameter having the value zero indicating there is no more data to send before releasing a TBF. At the time the invention was made, it would have been obvious to one of ordinary skill in the art that the control message could be equivalent to dummy data because it does

not have actual information that the devices were trying to exchange. Furthermore, a dummy variable (also known as indicator or bound variable) is one that takes the values 0 or 1 to indicate the absence or presence of some categorical effect that may be expected to shift the outcome. Therefore as the claims are interpreted in their broadest sense, the Examiner believes that Lohtia indeed does render the Applicant's invention obvious.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M. Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 10:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung S. Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/   /Feben M Haile/
Supervisory Patent Examiner, Art Unit 2616   Examiner, Art Unit 2616